IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s): OOI ET AL.

SERIAL NO.: 09/802,084 ART UNIT: 2823

FILING DATE: March 8, 2001 EXAMINER: William D.

Coleman

TITLE: "QUANTUM WELL INTERFACING"

ATTORNEY

DOCKET NO.: 774-010234-US (PAR)

Commissioner of Patents

P.O. Box 1450

Alexandria, VA 22313-1450

ATTENTION: BOARD OF PATENT APPEALS AND INTERFERENCE STATE APPEALS A

APPELLANTS' REPLY BRIEF

This is in response to the Examiner's answer mailed June 10, 2004.

Applicants thank the Examiner for withdrawing the rejection of claim 1 on the grounds of double patenting.

It is again submitted that, while Burham discloses laser induced disordering, it does not disclose defect generation as recited in present claim 1. Further, there is no subsequent annealing to promote quantum well intermixing as also recited in claim 1. Thus the rejection of claim 1 and 4-9 under 35 USC 102 should be Further, since there is no suggestion of these reversed. features, these claims are unobvious over Burnham.

Thompson does not show a radiation source which produces photons having an energy at least equal to the displacement energy as recited in the claims. In particular, helium particles do not have the required energy. Hence combining it with Burnham does not result in the present invention. Thus, the rejection of claims 2,3 and 16 under 35 USC 103 over Burnham in view of Thompson should be reversed.

Poole fails to disclose a photoresist as claimed in claim 10. Similarly, Feldman fails to show using a mask to control quantum well intermixing as recited in claim 11. Thus, combining these references with Burnham does not result in the present invention. Hence, the rejection of claims 10-15 under 35 USC 103 on this combination of references should be reversed.

Applicants again request this Honorable Board to reverse all rejections.

The Commissioner is hereby authorized to charge payment for any additional fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

Henry I. Stèckler

Reg. No. 24,139

Date

lep 4, 2004

Perman & Green, LLP

425 Post Road

Fairfield, CT 06824

(203) 259-1800

Customer No.: 2512

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date indicated below as first class mail in an envelope addressed to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Attention: BOARD OF PATENT APPEALS AND INTERFERENCES

Date: 8/9/2004

Signature:_/

Person Making Deposit

2004 AUG | I PM 3: 45